















# XXXVII SISFA National Congress - Bari 2017 Programme

# 26 September 2017 - Tuesday

15.00-18.35 - Palazzo Ateneo, Salone degli Affreschi - Bari, Piazza Umberto I

15.00 Registration

15.30 Opening remarks by institutional representatives

Invited talks

# 16.00 Mauro Di Giandomenico

Fifty years of History of Science in Bari

# 16.45 Bruno Ghidini

The historical roots of the Department of Physics of Bari (provisional title)

### 17.30-17.50 Coffee break

# 17.50 Salvatore Esposito

Darwin and the others: the reception of Poli's Testacea outside Italy and other recent discoveries about the Molfetta scientist

18.35 End of session

18.45 Special evening event: Guided visit in old Bari city

# 27 September 2017 - Wednesday

9.00-13.25 - Dipartimento Interateneo di Fisica "Michelangelo Merlin", Campus Universitario "Ernesto Quagliariello"

THEME: Physics and Astronomy in the 20th century

Invited talks

#### 9.00 Nadia Robotti

The Italian Physicists and the Great War

Communications

#### 9.45 Stefano Bordoni

The historical roots of new debates on classical electrodynamics

#### 10.05 Christian Bracco

Albert Einstein and the Marangoni family

# 10.25 Mario Calamia, Monica Gherardelli

Exact time: the first scientific application of remote communications

# 10.45 Fabrizio Bònoli, Valeria Picazzi

Is really the Guido Horn d'Arturo's tessellated telescope the forefather of the modern large multi-mirror telescopes?

#### 11.05-11.25 Coffee break

THEME: Physics between the 17th and 19th centuries

Communications

#### 11.25 Flavia Marcacci

All the planets are related to the Sun. Riccioli and his spiralized skies

# 11.45 Grazia Zini, <u>Susanna Bertelli</u>, Chiara Beatrice Vicentini, Paolo Lenisa

Pietro Torquato Tasso (1765-1842), the inventor: stories of watches and various instruments between science and everyday life

# 12.05 Rosanna Del Monte, Azzurra Auteri

The kaleidoscopes applied to figurative arts: the genius of Paolo Anania De Luca

# 12.25 Roberto Mantovani

A physics outsider: the case of the amateur scientist Gaetano Spandri (1796-1859)

# 12.45 Lucia De Frenza

Paolo Volpicelli: a scientist's career in papal Rome

#### 13.05 Marco Taddia

On the supposed discovery of terrestrial helium by Luigi Palmieri Titolo

#### 13.25-14.40 Lunch break

14.40-18.30 - Dipartimento Interateneo di Fisica "Michelangelo Merlin", Campus Universitario "Ernesto Quagliariello"

THEME: Physics and other disciplines

Communications

#### 14.40 Fausto Casi

Silent Cinema between emigration and return

#### 15.00 Benedetta Campanile

Roberto Mario Fano: an Italian among architects of the Information

### 15.20 Luca Guzzardi

Epistemic Constraints

#### 15.40 Laura Franchini

The birth of the Nobel peace prize and the dispute about the use of a scientific innovation

#### 16.00 Giancarlo Albertini, Anna Sicolo

The perception of flowing time: metaphors and mental disorders

# 16.20-16.40 Coffee break

THEME: From antiquity to Galilei

Communications

# 16.40 G. Boscarino, P. Di Mauro, A. Pagano, E.V. Pagano

Elements of Geometrical Calculation in Archimede: The laws of statics

# 17.00 Renato Migliorato

On the origins of a scientific paradigm

### 17.20 Vincenzo Cioci

New insights about Galileo's research on the fall of bodies. A review

#### 17.40 Annual SISFA General Assembly

#### 20.30 Social Dinner

# 28 September 2017 - Thursday

9.00-13.30 - Dipartimento Interateneo di Fisica "Michelangelo Merlin", Campus Universitario "Ernesto Quagliariello"

THEME: Physics in the 20th century

Invited talks

#### 9.00 Paolo Rossi

Physics in Pisa in the first half of the XX century: a reappraisal Communications

#### 9.45 Marcella Palese

Noether Theorems and conservation laws in field theory

# 10.05 Marco Di Mauro, Salvatore Esposito, Adele Naddeo

A less known Feynman: an interplay between physics and biology at the Hughes Aircraft Company

#### 10.25 Flavio Del Santo

Karl Popper's engagement in quantum physics in the 1960s and his critique of the Logic of Quantum Mechanics

# 10.45 Antonino Drago

Strocchi's formulation of Quantum Mechanics. Its improvement to an alternative formulation to the dominant one

# 11.05-11.30 Coffee break

THEME: From the Middle Ages to the Modern era

Communications

#### 11.30 Maria Luisa Tuscano

King Ruggero II and the Reform of the Calendar

#### 11.50 Ivana Gambaro

Jesuit science and epistemology in 17th century

#### 12.10 Mauro Gargano

Della Porta, Colonna and Fontana and the first astronomical observations in Naples

#### THEME: Physics in the 19th century

# 12.30 Tullio Aebischer

Bicentenary birth A. Secchi 1818-2018: the geodetic activity

# 12.50 Pasquale Tucci

Angelo Secchi: "L'Unità delle Forze fisiche"

# 13.10 Danilo Capecchi

Christian epistemology of Gabrio Piola. The Lettere di Evasio a Uranio

#### 13.30-14.40 Lunch break

14.40-18.50 - Dipartimento Interateneo di Fisica "Michelangelo Merlin", Campus Universitario "Ernesto Ouagliariello"

Topical Session

# Franco Selleri (1936-2013): His research and legacy on the foundations of quantum mechanics and relativity

Invited talks

#### 14.40 Ludwik Kostro

-Units and -Mega Quantum of Action in their Historical Context

#### 15.25 Gino Tarozzi

The reality of the wave function and of EPR's predictable properties in Franco Selleri's interpretation of Quantum Mechanics

### 16.10 Francesco Guerra

Franco Selleri: the courage of ideas

#### 16.30-16.50 Coffee break

Communications

# 16.50 Giancarlo Scalera

Can the history of the ether receive new boost from geosciences?

# 17.10 Luigi Romano

Franco Selleri and His Contribution to the Research of Foundations of Relativity Theory

#### 17.30 Angela Laurora

John Bell's scientific correspondence in the early 1970s

# 17.50 Angelo Baracca, Flavio Del Santo

Franco Selleri and Karl Popper: fighting side by side for realism in physics

# 18.10 Saverio Pascazio

Franco Selleri's Legacy and the Bell Inequality

# 18.30 Alexander Afriat

The circularity of rotation

# 18.50 End of sessions

# 29 September 2017 - Friday

9.00-13.20 - Palazzo Ateneo, Salone degli Affreschi - Bari, Piazza Umberto I

THEME: Didactics of Physics, Physics and society

Invited talks

# 9.00 Matteo Leone

Physicists in the Senate of the Kingdom of Italy:1848-1943

Communications

#### 9.45 Gaetano Abate

The Science Museum of Irpinia in Avellino: recovery, restoration, record and didactics of physics

#### 10.05 Daniele Buongiorno, Marisa Michelini

The conceptual contribution of the history in learning physics: the case of optical spectroscopy

#### 10.25 Pietro Cerreta

Historical experiences and fundamental concepts of electrostatics

#### 10.45 Lucio Fregonese

Coulomb's electrostatic law in Italian secondary-school textbooks. A difficult situation and possible solutions

# 11.05 Elena Corradini

The Italian University Museums Network for the promotion of the physics collections: development prospects

### 11.25-11.45 Coffee break

11.45 Panel discussion(coordinated by Augusto Garuccio):

# The role of the history and didactics of physics and astronomy in the training of future physics teachers

- -Ileana Rabuffo (Presidente Commissione Permanente Didattica SIF)
- -Alberto Meroni (Associazione per l'Insegnamento della Fisica AIF)
- -Maria Mellone (Unione Matematica Italiana UMI)
- -Ginevra Trinchieri (Presidente Società Astronomica Italiana SAIt)
- -Francesca Monti (Rappresentante area fisica nel CUN)

# 13.20 Congress ending remarks

# 13.30-14.30 Lunch break

14.30 Special event: Cultural trip Trani (Cathedral, Synagogue and Hebrew Museum, Typewriters Museum)